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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/973,841	10/11/2001	Takashi Imamura	KP-9138	7722
466	7590	05/19/2004	EXAMINER	
YOUNG & THOMPSON			KALAFUT, STEPHEN J	
745 SOUTH 23RD STREET 2ND FLOOR			ART UNIT	
ARLINGTON, VA 22202			PAPER NUMBER	

1745

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/973,841

Applicant(s)

IMAMURA ET AL.

Examiner

Stephen J. Kalafut

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 12-18 and 26-28 is/are rejected.
- 7) ☒ Claim(s) 10, 11 and 19-25 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/11/02, 11/12/02
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9, 17, 18 and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang (DE 200 05 546) in view of Mabuchi (US 3,941,618).

Chang is the German equivalent of GB 2,360,396, cited by applicants. The British document may thus serve as a translation of the German document, but the German document is used as the basis for this rejection, because it is published early enough to be applicable. Chang discloses a battery unit (1) including a battery (3) which would have two electrodes; a battery case which includes two parts (11, 12), and which encloses the battery (3); and two contact segments (5, 122) which each contact a battery electrode, and extend through a hole in the respective casing part. The casing may be given the size of AA, to accommodate an AAA-size battery (page 6, starting at line 9). As seen in figures 2, 5, 7-10 and 12, the contact segments may each include a plate, and pin which projects outward of the casing part. The battery and casing are cylindrical, with the electrodes at opposite ends thereof. Each casing half includes an outer wall and an end wall, one of the halves functioning as a cap. Part of one contact element (122) is curved, as seen in figures 8 and 9. The lower casing half (12) includes outward and inward projecting portions (figure 2), the inner projections (121) forming a receiving chamber. The lower contact element (122) is connected to a biasing mechanism (123). These claims differ from Chang by reciting that the casing and contacts segments are joined in watertight manner.

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Mabuchi discloses a battery cassette which is watertight, and teaches that this allows the batteries to be used in water, such as in rain, and avoid bad effects on the internal construction thereof (column 2, lines 26-30). For this reason, it would be obvious to join the casing parts and contact segments of Chang in a watertight manner as taught by Mabuchi. Recitations of intended use, such as "for being contained in a lens-fitted photo film unit", do not distinguish. Selection of appropriate materials for the casing parts would be within the skill of the ordinary artisan, who would be familiar with the properties of materials. The artisan would also select insulating materials, so as to avoid a short circuit between the two contact segments.

Claims 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in view of Mabuchi as applied to claim 1 above, and further in view of either Monteleone *et al.*, (US 5,904,414) or Parker (US 5,404,281).

These claims differ from the above combination by reciting that the battery cap includes a chamber, which contains a hydrogenation catalyst, a water absorbing agent, or a neutralizing agent. Monteleone *et al.* disclose a battery container for a flashlight, which includes pellets (28) which interact with any hydrogen given off by the adjacent batteries. See column 3, lines 44 through 55. Parker discloses a battery-operated flashlight which includes aluminum oxide pellets (54), which react with hydrogen generated by the batteries (column 3, line 23 through column 4, line 8). Because of the safety afforded by these hydrogen-reactive materials, it would be obvious to include within the battery casing of Chang, the hydrogen-reactive pellets of either Monteleone *et al.* or Parker.

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Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in view of Mabuchi as applied to claim 1 above, and further in view of Kung (US 4,788,112).

These claims differ from the above combination by reciting that the battery cap includes a chamber, which contains a hydrogenation catalyst, a water absorbing agent, or a neutralizing agent. Kung discloses a battery with an agent for neutralizing any electrolyte escaping therefrom (column 2, lines 46-51). Because of the safety afforded by a neutralizing agent, it would be obvious to use such an agent as disclosed by Kung in the battery casing of Chang. This would enable the casing to Chang to be safely operated with types of batteries which experience the problem of electrolyte leakage.

Claims 12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in view of Mabuchi as applied to claim 1 above, and further in view of Booe (US 4,081,397).

These claims differ from the above combination by reciting that the battery cap includes a chamber, which contains a hydrogenation catalyst, a water absorbing agent, or a neutralizing agent. Booe teaches the use of a desiccant to protect electronic devices such as batteries from the ambient atmosphere (column 1, lines 9-29 and column 2, lines 43-54) and stabilizing the atmosphere around the component. Because of this protective ability, it would be obvious to include a desiccant as disclosed by Booe in the battery casing of Chang.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang in view of Mabuchi as applied to claim 1 above, and further in view of Lian *et al.* (US 6,106,969).

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This claim differs from the above combination by reciting a colored material, on the outside of the casing, for indicating damage to the battery, by reacting with alkaline material therefrom to produce a colored product. Lian *et al.* disclose a battery with an external indicator (130, 230), which exhibits a change in color upon contact with solutions coming from inside the battery (column 2, lines 41-49), such as alkaline ("caustic") solutions. This would be useful for identifying a defective cell (column 2, lines 54-60). To enhance safety by being able to identify a defective cell, it would be obvious to use the colored indicator of Lian *et al.* on the outside of the casing of Chang.

Claims 10, 11 and 19-25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art applied above, or cited either below or by applicants, does not disclose a battery unit including a casing and contact segments extending through holes in the ends thereof, and also including either a positioning cutout and projection within one of the contacts, or packing members between the contact segments and casing parts.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chih-Chang *et al.* (US 6,228,517) disclose cylindrical battery adapters which may include a spring contact at one end thereof.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J. Kalafut whose telephone number is 571-272-1286. The examiner can normally be reached on Mon-Fri 8:00 am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

sjk


STEPHEN KALAFUT
PRIMARY EXAMINER
GROUP
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